

CLASSIFICATION: 05 10 00

created via: HPDC Online Builder

PRODUCT DESCRIPTION: Gerdau Long Steel Products are hot rolled long products used in the construction, agricultural, service center, and energy markets produced to industry and/or customer requirements. PRODUCT IDENTIFICATION: HPD covers Straight and Fabricated Concrete Reinforcing Bars, Bantam Beams, Super-Light Beams, Guard Rail Beams, Wide Flange Beams, H-pile, PS Flat Sheet Piling, PZC Sheet Piling, Angles, Channels, Flats, Rounds, Squares.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
- Basic Method

Threshold Disclosed Per

- Material
- Product

Threshold level

- 100 ppm
- 1,000 ppm
- Per GHS SDS
- Per OSHA MSDS
- Other

Residuals/Impurities

- Considered
 - Partially Considered
 - Not Considered
- Explanation(s) provided for Residuals/Impurities?
- Yes
 - No

Are All Substances Above the Threshold Indicated:

- Characterized**
Percent Weight and Role Provided? Yes No
- Screened**
Using Priority Hazard Lists with Results Disclosed? Yes No
- Identified**
Name and Identifier Provided? Yes No

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

Number of Greenscreen BM-4/BM3 contents..... 0
 Contents highest concern GreenScreen Benchmark or List translator Score..... LT-1
 Nanomaterial..... No

INVENTORY AND SCREENING NOTES:

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE

HOT ROLLED MERCHANT, REBAR, AND STRUCTURAL STEEL GRADES [
IRON (IRON) LT-P1 | END MANGANESE LT-P1 | END | MUL | REP NICKEL
LT-1 | MAM | CAN | SKI | AQU | RES | MUL CHROMIUM LT-P1 | RES | END |
SKI CARBON LT-UNK SILICON LT-UNK COPPER LT-UNK MOLYBDENUM
LT-UNK VANADIUM LT-1 | MUL | CAN | GEN SULFUR LT-UNK | SKI
PHOSPHORUS BM-2 | AQU | MAM | PHY NIOBIUM LT-UNK TIN LT-P1
ALUMINUM LT-P1 | RES | END | PHY BORON LT-UNK TITANIUM LT-UNK]

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

Other: Environmental Product Declaration

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2017-12-15

PUBLISHED DATE: 2017-12-15

EXPIRY DATE: 2020-12-15

Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

HOT ROLLED MERCHANT, REBAR, AND STRUCTURAL STEEL GRADES

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Gerdau worked with a third party preparer to verify that all residuals and impurities have been considered under the preparation of this HPD

OTHER PRODUCT NOTES:

IRON (IRON)

ID: 7439-89-6

%: **89.8200** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES:

MANGANESE

ID: 7439-96-5

%: **1.9000** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES:

NICKEL

ID: 7440-02-0

%: **1.9000** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

MAMMALIAN

EU - R-phrases

R23 - Toxic by Inhalation (gas, vapour, dust/mist)

CANCER

EU - R-phrases

R40 - Limited Evidence of Carcinogenic Effects

SKIN SENSITIZE	EU - R-phrases	R43 - May cause sensitization by skin contact
ACUTE AQUATIC	EU - R-phrases	R52 - Harmful to Aquatic Organisms
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sh - Danger of airway & skin sensitization
ORGAN TOXICANT	EU - R-phrases	R48 - Danger of serious damage to health by prolonged exposure.

SUBSTANCE NOTES:

CHROMIUM

ID: **7440-47-3**

#: 1.1900	GS: LT-P1	RC: None	NANO: No	ROLE: Structure
HAZARDS:	AGENCY(IES) WITH WARNINGS:			
RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only		
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization		

SUBSTANCE NOTES:

CARBON

ID: **7440-44-0**

#: 1.1900	GS: LT-UNK	RC: None	NANO: No	ROLE: Structure
HAZARDS:	AGENCY(IES) WITH WARNINGS:			
None Found	No warnings found on HPD Priority lists			

SUBSTANCE NOTES:

SILICON

ID: 7440-21-3

#: 0.9900	GS: LT-UNK	RC: None	NANO: No	ROLE: Structure
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HAZARDS:	AGENCY(IES) WITH WARNINGS:
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None Found	No warnings found on HPD Priority lists
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SUBSTANCE NOTES:

COPPER

ID: 7440-50-8

#: 0.9000	GS: LT-UNK	RC: None	NANO: No	ROLE: Structure
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HAZARDS:	AGENCY(IES) WITH WARNINGS:
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None Found	No warnings found on HPD Priority lists
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SUBSTANCE NOTES:

MOLYBDENUM

ID: 7439-98-7

#: 0.4900	GS: LT-UNK	RC: None	NANO: No	ROLE: Structure
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HAZARDS:	AGENCY(IES) WITH WARNINGS:
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None Found	No warnings found on HPD Priority lists
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SUBSTANCE NOTES:

VANADIUM

ID: 7440-62-2

#: 0.4900	GS: LT-1	RC: None	NANO: No	ROLE: Structure
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HAZARDS:	AGENCY(IES) WITH WARNINGS:
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MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
GENE MUTATION	MAK	Germ Cell Mutagen 2

SUBSTANCE NOTES:

SULFUR

ID: 7704-34-9

#: 0.3900	GS: LT-UNK	RC: None	NANO: No	ROLE: Structure
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HAZARDS:	AGENCY(IES) WITH WARNINGS:
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SKIN IRRITATION

EU - R-phrases

R38 - Irritating to skin

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

SUBSTANCE NOTES:

PHOSPHORUS

ID: **7723-14-0**

%: **0.2400**

GS: **BM-2**

RC: **None**

NANO: **No**

ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ACUTE AQUATIC

EU - R-phrases

R52 - Harmful to Aquatic Organisms

MAMMALIAN

US EPA - EPCRA Extremely Hazardous Substances

Extremely Hazardous Substances

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

SUBSTANCE NOTES:

NIOBIUM

ID: **7440-03-1**

%: **0.1400**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

TIN

ID: **7440-31-5**

%: **0.0900**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

ALUMINUM

ID: **7429-90-5**

%: **0.0900**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H228 - Flammable solid
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H261 - In contact with water releases flammable gases

SUBSTANCE NOTES:

BORON ID: 7440-42-8

%: **0.0900** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES:

TITANIUM ID: 7440-32-6

%: **0.0900** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES:

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

OTHER Environmental Product Declaration

CERTIFYING PARTY: Third Party	ISSUE DATE: 2015-12-	EXPIRY DATE: 2020-	CERTIFIER OR LAB: SCS Global
APPLICABLE FACILITIES: Gerdau Rancho Cucamonga Steel Mill, 12459-B Arrow Rte., Rancho Cucamonga, CA 91739	15	12-14	Services

CERTIFICATE URL:
<https://www.scsglobalservices.com/certified-green-products-guide>

CERTIFICATION AND COMPLIANCE NOTES: Evaluates the environmental performance of 1 metric ton of Gerdau's Carbon Steel Rebar. SCS-EPD-03799. Searching 'Gerdau' on the site of the Certificate URL leads to a total of 24 unique EPDs that have been generated for Gerdau's Hot Rolled Structural, Merchant, and Rebar Steel Grade products. These EPDs can be accessed by clicking on the picture of each product and an additional link under the heading 'Environmental Product Declaration (EPD).' Please note that these 24 products are associated with different applicable facility addresses and

+ Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

📄 Section 5: General Notes

Gerdau worked with the approved HPDC Third Party Preparer, ToxServices, to confirm that all residuals and impurities were considered.

👁️ Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Gerdau**
ADDRESS: **Gerdau Long Steel North America**
4221 West Boy Scout Blvd
Tampa Florida 33607, USA
WEBSITE: **www.gerdau.com**

CONTACT NAME: **Ken Wong**
TITLE: **Technical Service - Manager**
PHONE: **651-731-5692**
EMAIL: **Ken.Wong@Gerdau.com**

KEY

- OSHA MSDS** Occupational Safety and Health Administration Material Safety Data Sheet
- GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

- | | | |
|---------------------------------------|--|--|
| AQU Aquatic toxicity | GLO Global warming | PHY Physical Hazard (reactive) |
| CAN Cancer | MAM Mammalian/systemic/organ toxicity | REP Reproductive toxicity |
| DEV Developmental toxicity | MUL Multiple hazards | RES Respiratory sensitization |
| END Endocrine activity | NEU Neurotoxicity | SKI Skin sensitization/irritation/corrosivity |
| EYE Eye irritation/corrosivity | OZO Ozone depletion | LAN Land Toxicity |
| GEN Gene mutation | PBT Persistent Bioaccumulative Toxic | NF Not found on Priority Hazard Lists |

GreenScreen (GS)

- | | |
|---|--|
| BM-4 Benchmark 4 (prefer-safer chemical) | LT-P1 List Translator Possible Benchmark 1 |
| BM-3 Benchmark 3 (use but still opportunity for improvement) | LT-1 List Translator Likely Benchmark 1 |
| BM-2 Benchmark 2 (use but search for safer substitutes) | LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark) |
| BM-1 Benchmark 1 (avoid - chemical of high concern) | |

Recycled Types

PreC Preconsumer (Post-Industrial)

PostC Postconsumer

Both Both Preconsumer and Postconsumer

Unk Inclusion of recycled content is unknown

None Does not include recycled content

Other Terms

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material

Nested Method / Product Threshold Substances listed within each material per threshold indicated per product

Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology

Third Party Verified Verification by independent certifier approved by HPDC

Preparer Third party preparer, if not self-prepared by manufacturer

Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.